Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

Claims 1-11 (canceled).

12. (currently amended) An optical phase variation type data recording medium comprising:

a reflective heat radiation layer;

a phase variation type recording layer consisting mainly of Ag, In, Sb and Te;

a first protection layer comprising:

SiO_2 as a basic material; and

a compound having a thermal conductivity greater than or equal to 10 W/m.deg when in a bulk state, said compound comprising silicon nitride in a molar ratio with the basic material of 10% to 85% silicon nitride,

wherein data are recorded on said phase variation type recording layer by forming amorphous portions on said recording layer, and said data are read from said recording layer by applying a coherent light beam and determining transitions between said amorphous portions and crystalline portions on said recording layer from respective light reflected from said amorphous portions and from said crystalline portions, and

wherein a thermal conductivity of said first pr otection layer allows sa id amorphous portions to be recorded in said recording layer through heating followed by rapid cooling, while

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protecting other portions of said recording layer from heating during said recording to said amorphous portions.

Claims 13-15 (canceled).

16. (currently amended) An optical phase variation type data recording medium including comprising:

a reflective heat radiation layer;

a phase variation type recording layer consisting mainly of Ag, In, Sb and Te;

a first protection layer comprising:

SiO_2 as a basic material; and

a compound having a thermal conductivity greater than or equal to 10 W/m.deg when in a bulk state, said compound comprising one or more of the compounds selected from the group consisting of:

zinc oxide in a molar ratio with the basic material of 3% to 50% zinc oxide,

titanium oxide in a molar ratio with the basic material of 10% to 98% titanium oxide,

magnesium oxide in a molar ratio with the basic material of 3% to 45% magnesium oxide,

yttrium oxide in a molar ratio with the basic material of 10% to 80% yttrium oxide,

gallium nitride in a molar ratio with the basic material of 1% to 30% gallium

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nitride,

silicon nitride in a molar ratio with the basic material of 10% to 85% silicon nitride,

aluminum nitride in a molar ratio with the basic material of 1% to 50% aluminum nitride,

silicon carbide in a molar ratio with the basic material of 5% to 50% silicon carbide, and

titanium carbide in a molar ratio with the basic material of 10% to 85% titanium carbide,

wherein data are recorded on said phase variation type recording layer by forming amorphous portions on said recording layer, and said data are read from said recording layer by applying a coherent light beam and determining transitions between said amorphous portions and crystalline portions on said recording layer from respective light reflected from said amorphous portions and from said crystalline portions, and

wherein a thermal conductivity of said first pr otection layer allows sa id amorphous portions to be recorded in said recording layer through heating followed by rapid cooling, while protecting other portions of said recording layer from heating during said recording to said amorphous portions.

17. (previously presented) The data recording medium as claimed in claim 12, wherein the compound includes a combination of the silicon nitride and zinc oxide, aluminum oxide, titanium oxide, magnesium oxide, yttrium oxide, gallium nitride, aluminum nitride, and/or

silicon carbide.

18. (previously presented) The data recording medium as claimed in claim 12, wherein the protection layer is adapted for use with the phase variation type data recording layer in an EFM modulation type recording system.

19. (previously presented) The data recording medium as claimed in claim 12, wherein the phase variation type data recording medium is adapted for use with a recording mechanism which uses melting and rapid cooling of the phase variation type data recording layer.

20. (previously presented) The data recording medium as claimed in claim 16, wherein the protection layer is adapted for use with the phase variation type data recording layer in an EFM modulation type recording system.

21. (previously presented) The data recording medium as claimed in claim 16, wherein the protection layer is adapted for use with a recording mechanism which uses melting and rapid cooling of the phase variation type data recording layer.

Claims 22-23 (canceled).

24. (new) The optical phase variation type data recording medium as claimed in claim 12, further comprising a substrate and a second protection layer between said substrate and said

phase variation type recording layer, wherein the thermal conductivity of said first protection layer is greater than a thermal conductivity of said second protection layer.

25. (new) The optical phase variation type data recording medium as claimed in claim 24, wherein said first protection layer is between said phase variation type recording layer and said reflective heat radiation layer.

26. (new) The optical phase variation type data recording medium as claimed in claim 16, further comprising a substrate and a second protection layer between said substrate and said phase variation type recording layer, wherein the thermal conductivity of said first protection layer is greater than a thermal conductivity of said second protection layer.

27. (new) The optical phase variation type data recording medium as claimed in claim 26, wherein said first protection layer is between said phase variation type recording layer and said reflective heat radiation layer.